

NOVEL HUMAN TRANSPORTER PROTEINS AND
POLYNUCLEOTIDES ENCODING THE SAME



5 The present application claims the benefit of U.S. Provisional Application Number 60/163,018 which was filed on November 2, 1999 and is herein incorporated by reference in its entirety.

1. INTRODUCTION

10 The present invention relates to the discovery, identification, and characterization of novel human polynucleotides encoding proteins that share sequence similarity with mammalian transporter proteins. The invention encompasses the described polynucleotides, host cell expression systems, the
15 encoded proteins, fusion proteins, polypeptides and peptides, antibodies to the encoded proteins and peptides, and genetically engineered animals that either lack or over express the disclosed genes, antagonists and agonists of the proteins, and other compounds that modulate the expression or activity of the proteins
20 encoded by the disclosed genes that can be used for diagnosis, drug screening, clinical trial monitoring, the treatment of diseases and disorders, or otherwise contributing to the quality of life.

2. BACKGROUND OF THE INVENTION

25 Transporter proteins are integral membrane proteins that mediate or facilitate the passage of materials across the lipid bilayer. Given that the transport of materials across the membrane can play an important physiological role, transporter proteins are good drug targets. Additionally, one of the
30 mechanisms of drug resistance involves diseased cells using cellular transporter systems to export chemotherapeutic agents from the cell. Such mechanisms are particularly relevant to cells manifesting resistance to a multiplicity of drugs.